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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,666	06/15/2001	Mary E. Hawkins	15280-3511US	4142

7590 12/19/2002

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EXAMINER

RILEY, JEZIA

ART UNIT PAPER NUMBER

1637

DATE MAILED: 12/19/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/786,666

Examiner

Jezia Riley

Applicant(s)

HAWKINS ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 10-12 and 18-47 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 and 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-47 is/are rejected.
- 7) ☒ Claim(s) 45 is/are objected to.
- 8) ☒ Claim(s) 1-4, 10-12 and 18-47 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

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DETAILED ACTION

1. Applicant's election with traverse of group II in Paper No. 8, filed on 11/21/02, is acknowledged. The traversal is on the ground(s) that no adequate reasons and/or examples have been provided to support a conclusion of patentable distinctness between the inventions of groups I-II. This is not found persuasive because the composition of group I can be used in materially different processes such as in methods of inhibition as substrate analogs or alternatively as in-vivo enzymatic inhibitors of which many mononucleotides are well known (see previous restriction requirements mailed 9/17/02). Additionally the invention of group II can be used in polymerase chain reaction (PCR assay). Therefore if all the groups I-III were searched together it will impose a serious burden on the examiner. The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

2. Claim 45 is objected to because of the following informalities: Claim 45 depends from claim 1 which is a non-elected claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 18-47 are rejected under 35 U.S.C. 102(a) as being anticipated by Hawkins (WO 98/26093).

The reference discloses compositions for detection of nucleic acid interactions with other nucleic acids or proteins. It utilizes fluorescent nucleotide analogs as fluorescent moieties. The methods involve contacting the target nucleic acid with a nucleic acid probe where the nucleic acid probe comprises a fluorescent nucleotide located in the probe such that, when the probe hybridizes to a target nucleic acid, the fluorescent nucleotide is present in a loop that does not participate in complementary base pairing with a nucleotide of the target nucleic acid (pages 3- 5). The fluorescent nucleotide analogues are described in pages 25-30. The fluorescent nucleotide analogues are pteridine nucleotides. Kits are disclosed and are useful for the detection of nucleic acid interactions (page 32).

5. Claims 18-27, 46-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Hawkins et al. (WO95/31469).

The reference discloses pteridine nucleotides (pages 3-4, 23-30) which are viewed to be identical to the instant invention, which can be incorporated into amplified DNA sequence rendering it fluorescent (pages 18-23, for example). This provides for a rapid assay for the presence or absence of amplified product. The oligonucleotides then contain pteridine nucleotides at one or more positions in the sequence, either

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internal to the sequence or terminal. An oligonucleotide may contain a single pteridine derivative at one or more locations or may contain two or more different pteridine derivatives (page 23). Kits are described and can comprise one or more containers containing pteridine nucleotide derivatives (page 34).

6. Claims 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Jungmann et al. Nucleosides & Nucleotides 16 (5&6) , pp. 863-868, 1997).

The reference discloses pteridine nucleosides analogs as building blocks for oligonucleotides synthesis. (See page 865).

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 29 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 16-17 of U.S. Patent No. 6451530.

Although the conflicting claims are not identical, they are not patentably distinct from

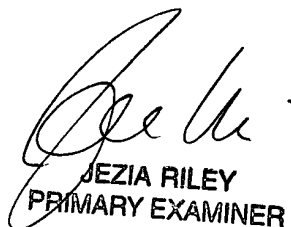
each other because they are claiming common embodiments but not of the same scope. Claims 16-17 of the US Patent disclose pteridine probes which are viewed to be inclusive of instant claim 29 probes.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jezia Riley whose telephone number is 703-305-6855. The examiner can normally be reached on 9:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 703-308-1119. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

December 18, 2002


JEZIA RILEY
PRIMARY EXAMINER